Environment and Climate Change Canada
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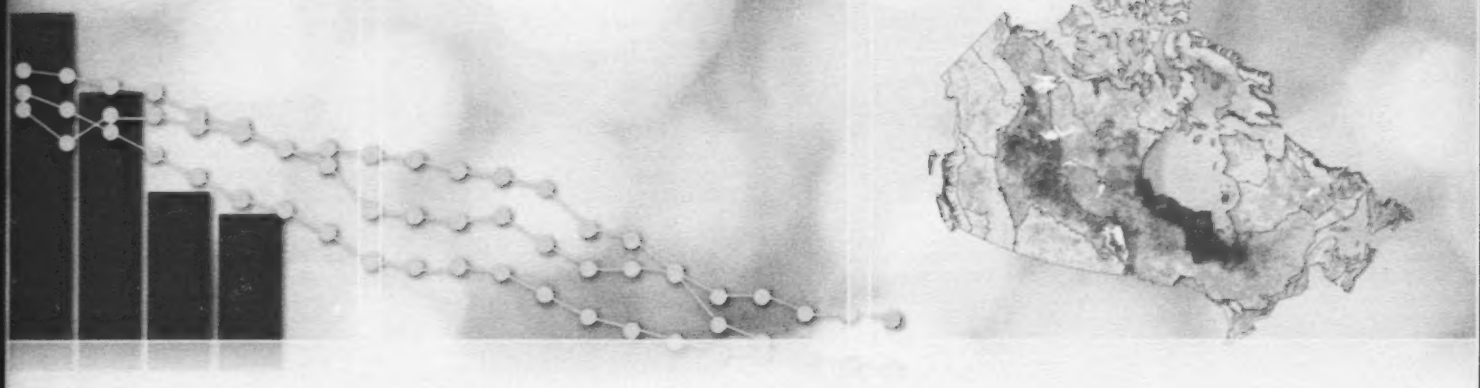
Canadian Environmental Sustainability Indicators

Canada's conserved areas



Canada

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Canadian Environmental Sustainability Indicators

Canada's conserved areas

July 2018

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Canada's conserved areas

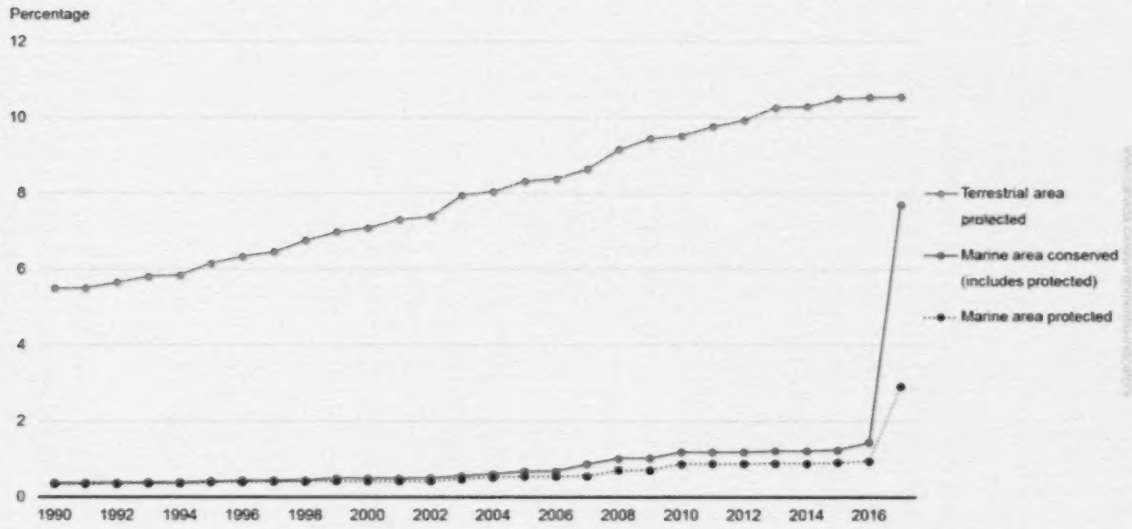
Well-managed conserved areas help preserve species and their habitats for present and future generations by reducing direct human development stresses. This indicator reports proportions of Canada's territory conserved through protected areas and other conservation measures.

Protected and other conserved areas

Key results

- As of the end of 2017:
  - 10.5% of Canada's terrestrial area (land and freshwater) was protected
  - 7.7% of its marine territory was conserved, including 2.9% in protected areas
- The terrestrial area protected has increased by 64% in the last 20 years, and by 6% in the last 5 years
- The marine area conserved has increased by a factor of more than 18 in the last 20 years, and by more than 5 times in the last 5 years

Figure 1. Trends in proportion of protected and other conserved areas, Canada, 1990 to 2017



Data for Figure 1

Note: Terrestrial areas include both land and freshwater. Protected areas include only areas recognized under international standards. Conserved areas include protection as well as other effective area-based conservation measures, such as marine refuges.
Source: Canadian Council on Ecological Areas (2017) Conservation Areas Reporting and Tracking System (CARTS), with Quebec data used by permission. Data are current as of December 31, 2017.

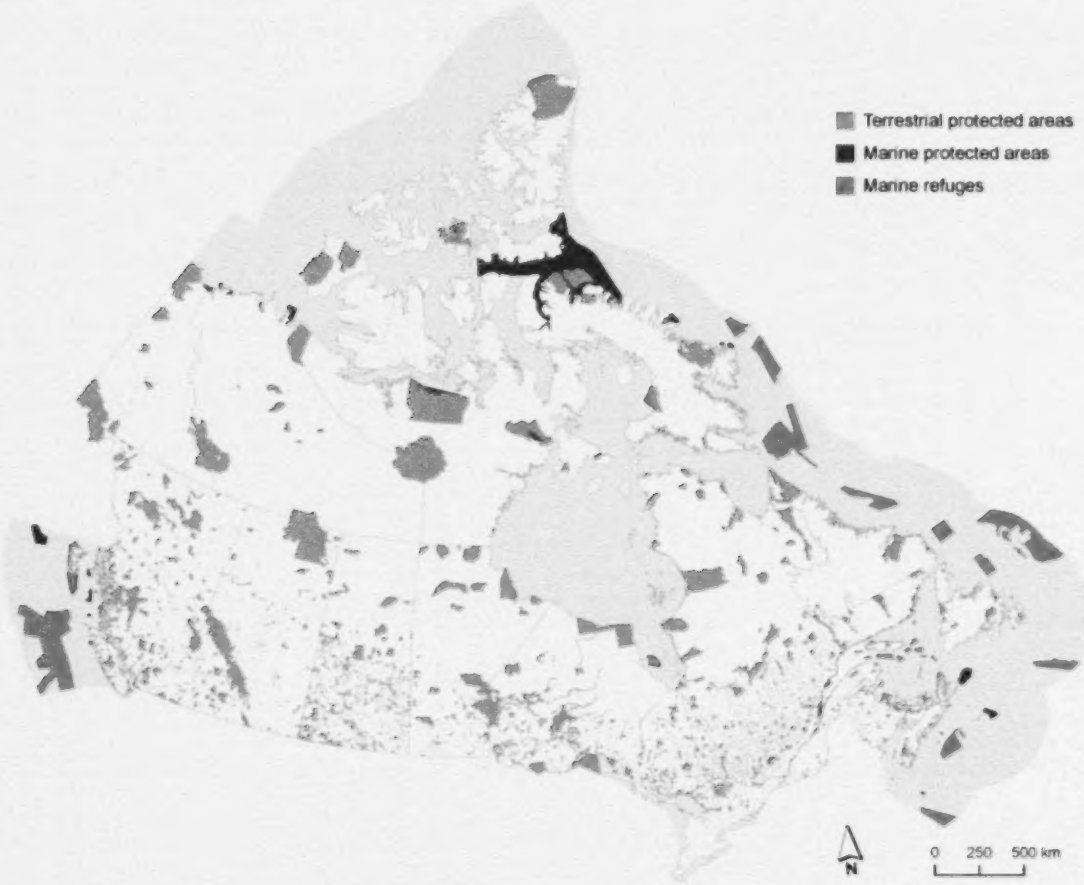
Protected and other conserved areas are lands and waters where use is limited for the purpose of conserving nature. In some cases, certain industrial activities and harvesting of biological resources may be allowed as long as conservation goals are met.

For the first time, marine refuges are being counted towards national protected areas targets. These are long-term fisheries area closures that are identified as "other effective area-based conservation measures" as described in Aichi Target 11. Conserved areas include protected areas, as well as

these other measures. Marine refuges may be re-examined when an internationally accepted definition of other effective area-based conservation measures has been finalized.

The distribution and size of protected and other conserved areas is variable. Larger terrestrial protected areas tend to be located in northern Canada, where there is less intensive use of land for agriculture, settlement, and road networks. Larger marine conserved areas tend to be in offshore areas, where human uses are often less intense. In landscapes and seascapes with competing uses, conserved areas tend to be smaller but more numerous.

Figure 2. Protected and other conserved areas, Canada, 2017



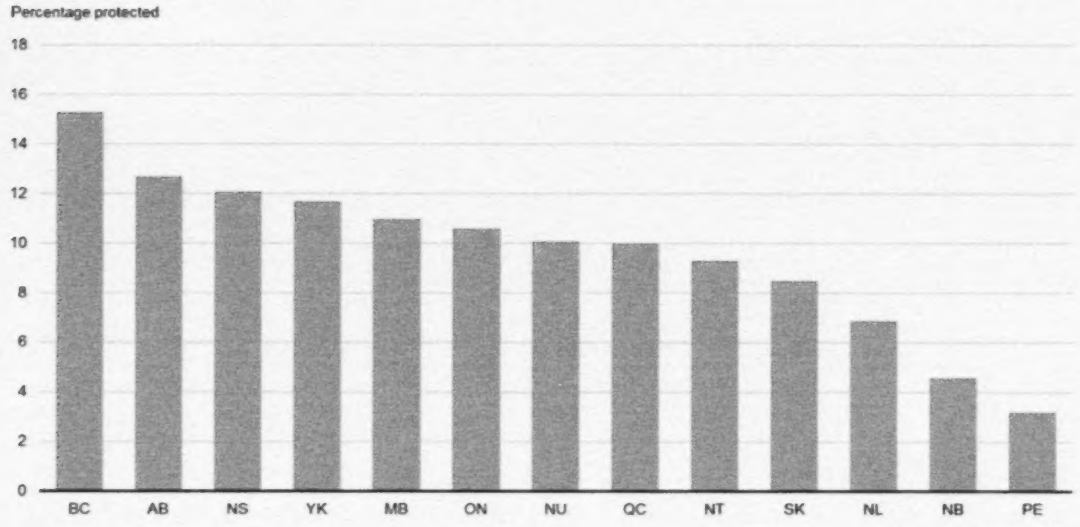
Source: Canadian Council on Ecological Areas (2017) Conservation Areas Reporting and Tracking System (CARTS), with Quebec data used by permission. Data are current as of December 31, 2017.

Territorial protected areas, by province and territory

Key result

- The proportion of terrestrial area (land and freshwater) protected varies by province and territory, ranging from 3.2% in Prince Edward Island to 15.3% in British Columbia

Figure 3. Total percentage of terrestrial area protected, by province and territory, Canada, 2017



Data for Figure 3

Note: Areas include land and freshwater but not marine areas. Not all provinces and territories report on protected areas that are privately owned.
Source: Canadian Council on Ecological Areas (2017) Conservation Areas Reporting and Tracking System (CARTS), with Quebec data used by permission. Data are current as of December 31, 2017.

As of the end of 2017, 15.3% of British Columbia's terrestrial area has been protected. Alberta has 12.7% of its territory protected. Newfoundland and Labrador, New Brunswick, and Prince Edward Island each have less than 7% of their terrestrial territory protected. The remaining provinces and territories have between 8% and 12% of their terrestrial territory protected.

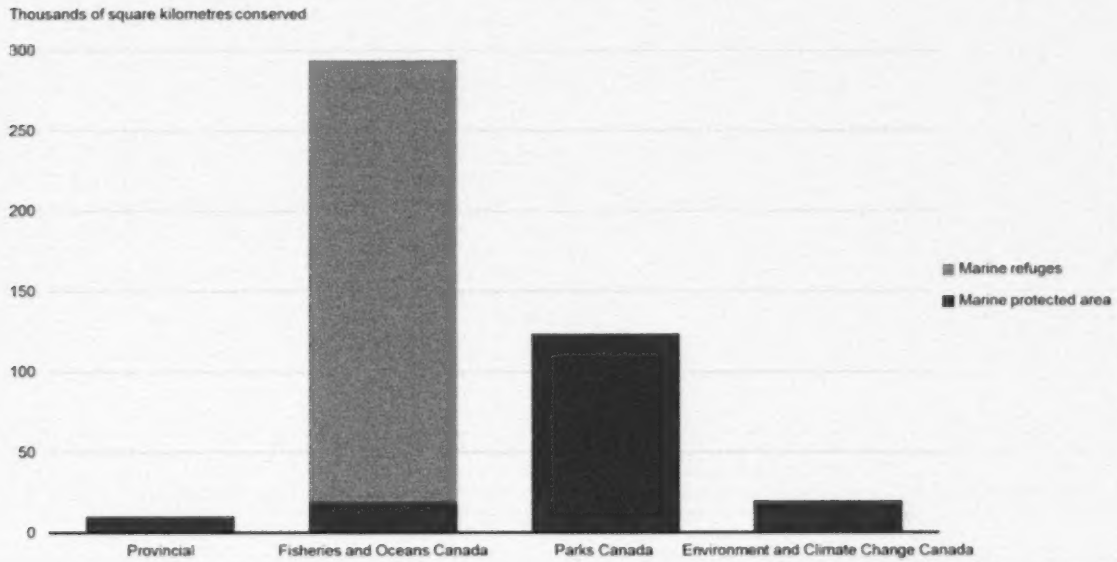
Each province has set aside areas for protection, and progress towards conservation targets varies by jurisdiction. The area protected by Nova Scotia has increased rapidly in recent years as a result of the province's efforts in meeting the goal of protecting 12% of the province by 2015.

Marine conserved areas, by jurisdiction

Key results

- The largest proportion of conserved area is contained in marine refuges. In 2017, marine refuge areas comprising about 247 000 km^2 were established
- Four (4) new marine protected areas were established in 2017, adding about 113 000 km^2 of protected area

Figure 4. Marine conserved areas, by jurisdiction, Canada, 2017



Data for Figure 4

Note: Marine refuges are geographic areas that conserve biodiversity, but that do not meet the formal definition of protected areas.
Source: Canadian Council on Ecological Areas (2017) Conservation Areas Reporting and Tracking System (CARTS), with Quebec data used by permission. Data are current as of December 31, 2017.

Conservation areas include both protected areas and other conservation measures. Areas that are managed to conserve biodiversity may not be recognized under the internationally accepted definition of a protected area, but still contribute to national and international targets. At the end of 2017, all the other conservation measures that have been identified as contributing to these targets were long-term fisheries area closures, which have been classified as marine refuges.

The 4 new marine protected areas established in 2017 are Tallurutiup Imanga (Lancaster Sound) National Marine Conservation Area, St. Anns Bank Marine Protected Area, Hecate Strait / Queen Charlotte Sound Glass Sponge Reefs Marine Protected Area, and Acadian Marshes (Egmont Bay) Natural Area. In June 2018, the Scott Islands marine National Wildlife Area was established. This adds an additional 11 455 km^2 to Canada's marine conserved area.

Fisheries and Oceans Canada, Parks Canada and Environment and Climate Change Canada each have specific but complementary mandates for establishing marine protected areas:

- Oceans Act marine protected areas (Fisheries and Oceans Canada) are established to protect and conserve marine species and their habitats, including for species that are fished, endangered or threatened marine species, as well as unique habitats and areas of high biological productivity or biodiversity.

- National marine conservation areas (Parks Canada) are established to protect and conserve representative examples of Canada's natural and cultural marine heritage and provide opportunities for public education and enjoyment.
- National wildlife areas and migratory bird sanctuaries (Environment and Climate Change Canada) are established to protect and conserve habitat for a variety of wildlife including migratory birds and endangered species.

These departments contribute to the marine protected area (MPA) networks, which have a primary goal to provide long-term protection of marine biodiversity, ecosystem function and special natural features.

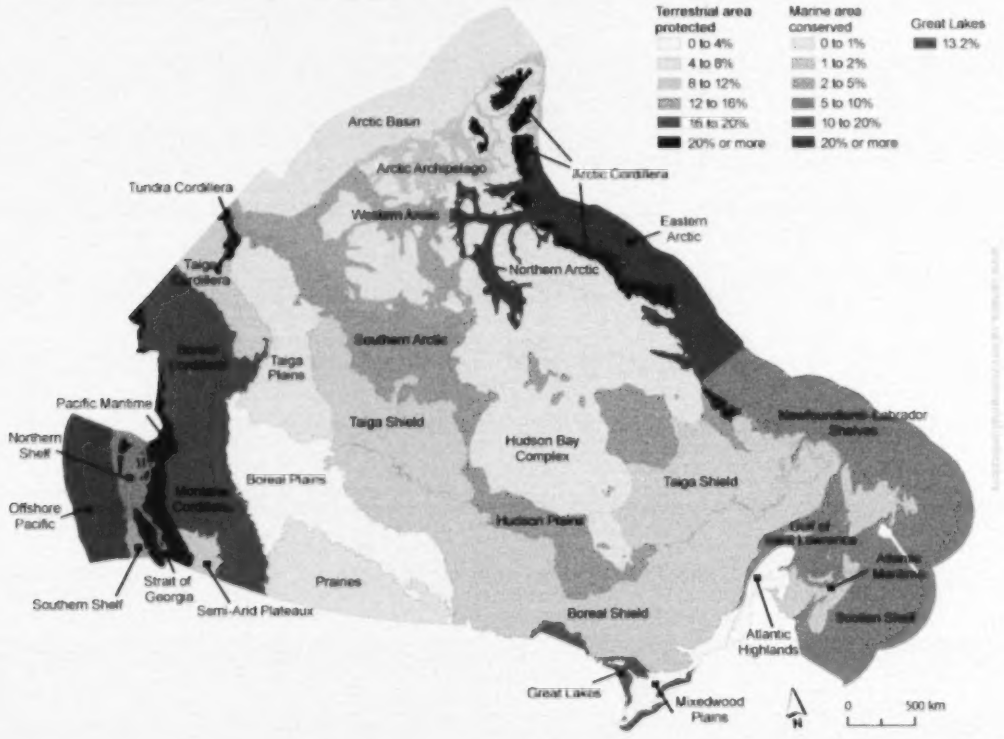
The different jurisdictions protect areas for different purposes (the role of the Canadian government in the oceans sector, the role of the provincial and territorial governments in the oceans sector), and control the amount of human activity (such as transportation, fishing or recreation) that is allowed. Marine conservation efforts include a wide range of management and stewardship activities. Examples include support for the recovery of species at risk, prevention and mitigation of the impact of aquatic invasive species, and strengthening of Canada's response to ship-source marine pollution.

Conserved areas, by ecological region

Key results

- Three (3) terrestrial ecozones, the Tundra Cordillera, the Pacific Maritime and the Arctic Cordillera, have more than 20% of their area protected
- The Offshore Pacific and the Eastern Arctic both have more than 20% of their area conserved through protected areas or as marine refuges
- 13% of the Canadian area of the Great Lakes is protected

Figure 5. Percentage of conserved ecozones, Canada, 2017



Data for Figure 5

Note: The conserved area is the sum of area protected and area conserved using other effective measures.
Source: Canadian Council on Ecological Areas (2017) Conservation Areas Reporting and Tracking System (CARTS), with Quebec data used by permission. For Ecozones, Canadian Council on Ecological Areas (2014) Canada Ecozones V5b. Data are current as of December 31, 2017.

Terrestrial ecozones with high levels of urbanization and development or widespread agriculture tend to have small proportions of protected area. For example, the Mixedwood Plains (southern Ontario and along the St. Lawrence River) has only 1.8% of its area protected and the Prairies has 6%.

On the other hand, terrestrial ecozones with a high proportion of protected area tend to be remote or have high recreation value. For example, ecozones in the western mountain ranges have 17% or more of their area protected.

Marine areas have not benefited from as long a tradition of protection. Recent efforts have rapidly increased the amount of area conserved in some marine ecozones. Tallurutiup Imanga / Lancaster Sound in the Eastern Arctic is the largest marine protected area in Canada, increasing the proportion

of the ecozone protected from around 1% to over 20%. Marine refuges in the Offshore Pacific, Newfoundland and Labrador Shelves, Scotian Shelf and Gulf of St. Lawrence have conserved more than 5% of each of these areas.

Each ecozone is unique, and protection involves the inclusion of areas that are representative of different parts of the ecozone and sites of special value. Challenges to establishing protected areas include competition from other uses, such as agriculture, industry or living space, and may be limited by the extent of ecologically intact areas within the ecozone.

About the indicators

What the indicators measure

The Canada's conserved areas indicators report the amount and proportion of Canada's terrestrial (land and freshwater) and marine area that is conserved. This includes areas recognized under the international definition of a protected area as well as other types of conserved areas. Land and/or water access, use and activities within conserved areas are controlled, primarily for the purpose of conserving biodiversity, regardless of proprietary designation (for example, park, conservation area or wildlife reserve).

Why these indicators are important

Well-managed protected and conserved areas are one way to protect wild species and their habitats for present and future generations. Habitat conservation is a measure of human response to the loss of biodiversity and natural habitat. As the conserved area in Canada increases, more lands and waters are withdrawn from direct human development stresses, thereby contributing to biodiversity conservation and improving the health of ecosystems. In turn, healthy ecosystems provide benefits such as clean water, mitigation of climate change, pollination and improved human health.

Many countries use protected areas as the core of their programs to preserve biodiversity, ecosystems and ecosystem services. The parties to the Convention on Biological Diversity, among them Canada, have set an aspirational target to conserve at least 17% of terrestrial areas and inland waters, and 10% of marine areas, by 2020. This is the 11th of 20 targets collectively known as the Aichi Biodiversity Targets, established in October 2010.

Protected and other conserved areas also contribute to the Sustainable Development Goals of the 2030 Agenda for Sustainable Development. They are directly linked to Target 14.5: "By 2020, conserve at least 10% of coastal and marine areas, consistent with national and international law and based on the best available scientific information" and Target 15.1 "By 2020, ensure the conservation, restoration and sustainable use of terrestrial and inland freshwater ecosystems and their services, in particular forests, wetlands, mountains and drylands, in line with obligations under international agreements." They also indirectly support other targets.

The main indicator supports the measurement of progress towards 2 targets of the 2016–2019 Federal Sustainable Development Strategy:

- by 2020, at least 17% of terrestrial areas and inland water are conserved through networks of protected areas and other effective area-based conservation measures
- by 2020, 10% of coastal and marine areas are conserved through networks of protected areas and other effective area-based conservation measures

It also contributes towards reporting on Target 1 of the 2020 Biodiversity target for Canada: "By 2020, at least 17 percent of terrestrial areas and inland water, and 10 percent of coastal and marine areas, are conserved through networks of protected areas and other effective area-based conservation measures." An interim target to conserve 5% of marine and coastal areas by 2017 has been met.

Related indicators

The Ecological integrity of national parks indicator reports on the condition of national parks, an important element of Canada's protected area network.

The Global trends in protected areas indicator compares Canada's protected area to a peer group of countries.

Healthy coasts and oceans

The indicators support the measurement of progress towards the following 2016–2019 Federal Sustainable Development Strategy long-term goals: coasts and oceans support healthy, resilient and productive ecosystems.

Sustainably managed lands and forests

The indicators support the measurement of progress towards the following 2016–2019 Federal Sustainable Development Strategy long-term goals: lands and forests support biodiversity and provide a variety of ecosystem services for generations to come.

Data sources and methods

Data sources

Data are taken from the Conservation Areas Reporting and Tracking System, jointly produced by the Canadian Council on Ecological Areas and Environment and Climate Change Canada. Data are collated from provincial, federal, and territorial jurisdictions, who are the authoritative data sources.

More information

Protected and other conserved areas

The Canadian Council on Ecological Areas' Conservation Areas Reporting and Tracking System contains data consolidated from all jurisdictions with responsibilities for protected and other conserved areas in Canada. Data are current as of December 31, 2017.

Jurisdictional area

- For Canada and for all provinces and territories except Quebec: Natural Resources Canada (2005) Canada Centre for Remote Sensing, Land and freshwater area, by province and territory
- For Quebec: Ministère du Développement durable, de l'Environnement et de la Lutte contre les changements climatiques
- Canada's marine territory: Fisheries and Oceans Canada (2013) departmental analysis based on National Resources Canada (2009) Atlas of Canada 1:1,000,000 National Frameworks Data, Administrative Boundaries

National boundaries

Natural Resources Canada (2009) Atlas of Canada 1:1,000,000 National Frameworks Data, Administrative Boundaries.

Ecozones

Canadian Council on Ecological Areas (2014) Canada Ecozones. Version 5b.

Marine ecozones are derived from marine bioregions, which were delineated following a national science advisory process that considered oceanographic and bathymetric similarities. For more information, see Fisheries and Oceans Canada (2009) Canadian Science Advisory Secretariat – Science Advisory Report 2009/056 and Government of Canada (2011) National Framework for Canada's Network of Marine Protected Areas.

Data description

Protected areas together with other conservation measures are referred to as conserved areas. Protected areas are areas recognized as meeting the international definition. Habitat protection is supplemented by other area-based conservation measures. Long-term fisheries area closures that meet strict criteria are recognized as marine refuges and are considered "other effective area-based conservation measures." Both protected areas and marine refuges are counted towards national protected areas targets.

Protected and other conserved areas data are housed in the Conservation Areas Reporting and Tracking System. Each year, federal, provincial and territorial departments and agencies submit geospatial and ancillary data for conserved areas under their administrative control. Data on areas controlled by Indigenous or non-governmental organizations, such as the Nature Conservancy of Canada and Ducks Unlimited Canada, are included in cases where a jurisdiction has recognized and categorized those areas.

Work is ongoing to capture and incorporate data on additional privately held protected areas and on areas being conserved through means other than formal protection. An internationally recognized definition of the "other effective area-based conservation measures" to be

included in protected-areas targets has not been established. However, Canada has developed domestic criteria for "other effective area-based conservation measures" in the marine realm. Using these criteria, marine refuges that contribute to conservation goals have been identified and these are included as conserved areas.

The data include the name of the area, its geospatial location, boundaries, official area, biome (terrestrial/marine), International Union for Conservation of Nature category, managing jurisdiction, and protection date, among other information.

In cases where the same attribute information does not apply to the entire conserved area, the area is divided into zones for reporting. For example, a single protected area that crosses a provincial border is divided into zones corresponding to the different provinces. Similarly, a protected area that is later expanded is treated as several zones, each with its own protection date. Terrestrial and marine sections are treated as separate zones; freshwater is included in the terrestrial zone. Ancillary data are maintained independently for each zone. Conserved areas that are undivided are treated as a single zone.

Methods

The area conserved is estimated by means of a geographical analysis based on the polygon boundaries. A correction is made for overlaps. Separate estimates are made for protected areas and for all conservation areas combined.

More information

Calculating Canada's conserved area

The Conservation Areas Reporting and Tracking System contains information on the protection (or conservation) date for each zone. For some zones, it also contains a delisting date.

To estimate the terrestrial protected area trend over time:

1. all polygons representing terrestrial protected areas that were protected in 1990 or earlier were selected from the database
2. the selected polygons were dissolved into a single polygon (removing overlaps), and the resulting area calculated
3. the process was repeated for each subsequent year. Delisted zones were removed from the analysis starting in the year they were delisted
4. estimates were divided by the total terrestrial area of Canada to determine the proportion protected

To estimate the marine protected area, a similar process was followed, selecting protected marine polygons at each step. Lastly, in order to estimate marine conserved area, combining both protected areas and other measures, all marine polygons were analyzed as a single set. This account for overlaps between different types of instruments: an area that is both protected and conserved using another measure is counted only once in the total conserved area.

Polygons with an unknown protection date comprise 1.6% of the total protected area. If a polygon with an unknown protection data was described as "interim", it was assigned a protection data of 2017; otherwise it was treated as having been protected prior to 1990.

Protected areas (terrestrial), by province and territory

The protected areas database contains information on the province or territory in which a protected area is located. Using methodology similar to that used for reporting trends in the national indicator, for each province and territory, terrestrial polygons were combined into a single polygon and the area calculated.

Marine conserved areas, by jurisdiction

The protected areas database contains information on the jurisdiction responsible for each protected area. As with the national indicator, for each jurisdiction, marine polygons were combined into a single polygon and the total conserved area was calculated. Additional analysis was conducted to estimate the area of marine protected areas and marine refuges separately.

Conserved areas, by ecological region

The protected areas database does not contain information on ecological regions. To generate an estimate of conserved area within each ecozone, a geospatial analysis was conducted. However, national ecozone boundaries are more generalized than local protected areas boundaries, and this has the potential to affect estimates in coastal areas. To avoid this problem, marine and terrestrial protected areas were processed separately.

Marine conserved area polygons that mapped outside a marine ecozone were assigned to the nearest marine ecozone. Similarly, terrestrial protected areas that mapped outside a terrestrial ecozone were assigned to the nearest terrestrial ecozone:

1. a working layer containing generalized ecozone boundaries was developed. Marine ecozone boundaries were copied from the national ecozone coverage, and polygons were extended to include adjacent terrestrial regions
2. the marine conserved area polygons were selected from the protected areas layer
3. the working layer and the marine conserved area polygons were combined into a single layer. Marine conserved areas that crossed ecozone boundaries were divided at the boundary
4. conserved area polygons were selected from the combined layer, and the overlap-corrected area was calculated for each generalized ecozone
5. the process was repeated for marine protected areas alone
6. the process was repeated for terrestrial protected areas. The process resulted in more than one multi-part polygon for some terrestrial ecozones: the areas of these were combined in a final step to estimate the protected area within each terrestrial ecozone

The total area of each ecozone was calculated from its geospatial boundaries, as re-projected to Albers Equal Area Conic to be consistent with the projection used in the Conservation Areas Reporting and Tracking System. The area of the Newfoundland-Labrador Shelves ecozone was corrected for the territorial area of St Pierre and Miquelon. The total area conserved per ecozone was divided by the total area of the ecozone in order to generate a percentage.

Recent changes

Data are regularly reviewed and updated.

In 2017, additional fields were added to the database to allow conservation measures other than protected areas to be tracked. Information on marine refuges is now being included.

In 2015, changes to the database enabled information on delisting and transfer between jurisdictions to be captured. This information is not yet fully captured in the database.

Caveats and limitations

Comparisons with previous reports should be made with caution, as data quality and completeness continue to improve. Privately protected land and other effective area-based conservation measures contribute to achievement of Canada's targets, but many are not yet captured as part of the indicators.

More information

The area calculated using polygon boundaries may differ from the official area.

Responsibility for source data accuracy and completeness lies with the jurisdictions. The Canadian Council on Ecological Areas provides data standards and guidance, including a procedures manual. Nonetheless, some differences among jurisdictions can be expected.

Areas that are no longer recognized as protected ("decommissioned" or "delisted") are not captured comprehensively and may be missing from the database.

Complex boundaries, such as coastlines and ecological regions, must be generalized for mapping purposes. In nature, ecozones do not have sharp boundaries. Due to the uncertainty of such boundaries, results should be seen as estimates rather than precise measurements. The mismatch in scale between protected areas, mapped with fine detail, and national-scale geographic frameworks, mapped at a broad scale, may lead to minor differences across the various summaries because of the measurement uncertainty inherent in this type of analysis. Differences in the delineation of coastlines may result in a small amount of overlap between marine and terrestrial protected area polygon boundaries; these have not been corrected for.

Ecozones are an ecologically based framework, and should not be considered an expression of sovereignty.

The Canadian Council on Ecological Areas reports a summary that differs slightly from the results reported here. The CCEA uses the sum of the official areas of individual protected areas and does not account for overlaps, except for the national total. The CCEA uses a national baseline terrestrial area that is the sum of provincial areas; the conserved areas indicators reported here use official territorial extent from the Atlas of Canada (with the exception of Quebec). In comparing these results, care should be taken to note any differences in the date-stamp of the underlying data and the methods of analysis.

Protection is a designation, and the indicators do not provide information on the effectiveness of protection, the degree to which the ecological functioning of the area is intact, or the degree to which pressures outside a protected area might affect the biodiversity within it. Marine refuges restrict certain activities without limiting others.

Resources

References

Canadian Council on Ecological Areas Secretariat (2008) Canadian Guidebook for the Application of International Union for Conservation of Nature Protected Area Categories 2008. CCEA Occasional Paper No. 18. Canadian Council on Ecological Areas, Ottawa, ON. 66 pp.

Fisheries and Oceans Canada (2009) Development of a Framework and Principles for the Biogeographic Classification of Canadian Marine Areas. **Canadian Science Advisory Secretariat Science Advisory Report 2009/056. Retrieved on January 5, 2018.**

Fisheries and Oceans Canada (2017) Operational Guidance for Identifying "Other Effective Area-Based Conservation Measures" in Canada's Marine Environment. **Retrieved on January 5, 2018.**

Stolton S, Shadie P and Dudley N (2013) Guidelines for applying protected area management categories including IUCN WCPA best practice guidance on recognising protected areas and assigning management categories and governance types **(combined volume). Best Practice Protected Area Guidelines Series No. 21, Gland, Switzerland, section 2. Retrieved on January 5, 2018.**

Related information

2020 Biodiversity Goals and Targets for Canada

Canadian Council on Ecological Areas

Convention on Biological Diversity

ProtectedPlanet.net

Interactive map **of Quebec's protected areas** (French only)

Annex

Annex A. Data tables for the figures presented in this document

Table A.1. Data for Figure 1. Trends in proportion of protected and other conserved areas, Canada, 1990 to 2017

Year	Terrestrial area protected (square kilometres)	Percentage of terrestrial area protected	Marine area protected (square kilometres)	Percentage of marine area protected	Marine area conserved (square kilometres)	Percentage of marine area conserved
1990	548 525	5.5	19 743	0.34	21 622	0.38
1991	549 028	5.5	19 762	0.34	21 641	0.38
1992	564 354	5.7	20 187	0.35	22 066	0.38
1993	579 004	5.8	20 427	0.36	22 306	0.39
1994	582 514	5.8	20 432	0.36	22 311	0.39
1995	614 176	6.2	22 199	0.39	24 079	0.42
1996	631 783	6.3	23 061	0.40	24 939	0.43
1997	643 742	6.4	23 082	0.40	24 961	0.43
1998	674 138	6.8	23 825	0.41	25 781	0.45
1999	696 970	7.0	24 058	0.42	28 303	0.49
2000	706 737	7.1	24 158	0.42	28 402	0.49
2001	729 438	7.3	24 189	0.42	28 433	0.49
2002	736 816	7.4	24 393	0.42	29 028	0.50
2003	793 168	7.9	27 593	0.48	32 243	0.56
2004	802 861	8.0	29 992	0.52	34 659	0.60
2005	829 527	8.3	31 412	0.55	38 834	0.68
2006	836 208	8.4	31 772	0.55	39 194	0.68
2007	862 561	8.6	31 964	0.56	49 809	0.87
2008	914 049	9.2	40 842	0.71	58 687	1.02
2009	942 438	9.4	41 397	0.72	59 241	1.03
2010	949 973	9.5	50 585	0.88	68 429	1.19

Year	Terrestrial area protected (square kilometres)	Percentage of terrestrial area protected	Marine area protected (square kilometres)	Percentage of marine area protected	Marine area conserved (square kilometres)	Percentage of marine area conserved
2011	974 403	9.8	50 673	0.88	68 517	1.19
2012	990 942	9.9	50 675	0.88	68 519	1.19
2013	1 024 703	10.3	51 322	0.89	70 155	1.22
2014	1 026 682	10.3	51 323	0.89	70 288	1.22
2015	1 048 075	10.5	52 669	0.92	71 659	1.25
2016	1 050 846	10.5	55 026	0.96	82 863	1.44
2017	1 053 121	10.5	168 260	2.9	442 926	7.7

Note: The terrestrial territory of Canada is 9 984 670 km^2 and its marine territory is approximately 5 750 000 km^2. Overlaps between protected areas were corrected for. Terrestrial areas include both land and freshwater. Protected areas include only areas recognized under international standards. Conserved areas include protection as well as other effective area-based conservation measures, such as marine refuges.
Source: Canadian Council on Ecological Areas (2017) Conservation Areas Reporting and Tracking System (CARTS), with Quebec data used by permission. Data are current as of December 31, 2017.

Table A.2. Data for Figure 3. Total percentage of terrestrial area protected, by province and territory, Canada, 2017

Province or territory	Provincial or territorial area (square kilometres)	Area protected (square kilometres)	Percentage of province or territory protected
British Columbia	944 735	144 827	15.3
Alberta	661 848	84 178	12.7
Nova Scotia	55 284	6 663	12.1
Yukon	482 443	56 334	11.7
Manitoba	647 797	71 141	11.0
Ontario	1 076 395	114 496	10.6
Nunavut	2 093 190	211 299	10.1
Quebec	1 512 418	151 395	10.0
Northwest Territories	1 346 106	125 657	9.3
Saskatchewan	651 036	55 522	8.5
Newfoundland and Labrador	405 212	28 110	6.9

Province or territory	Provincial or territorial area (square kilometres)	Area protected (square kilometres)	Percentage of province or territory protected
New Brunswick	72 908	3 385	4.6
Prince Edward Island	5 660	183	3.2

Note: Terrestrial areas include both land and freshwater. Areas include land and freshwater but not marine areas. Not all provinces and territories report on protected areas that are privately owned.
Source: Canadian Council on Ecological Areas (2017) Conservation Areas Reporting and Tracking System (CARTS), with Quebec data used by permission. Data are current as of December 31, 2017.

Table A.3. Data for Figure 4. Marine conserved areas, by jurisdiction, Canada, 2017

Jurisdiction	Marine protected area (square kilometres)	Other effective area-based measures (square kilometres)	Correction for overlap between instruments (square kilometres)	Total marine area conserved (square kilometres)
Provincial subtotal	10 277	0	0	10 277
Quebec	5 377	0	0	5 377
British Columbia	4 650	0	0	4 650
Atlantic provinces	171	0	0	171
Manitoba	80	0	0	80
Fisheries and Oceans Canada	19 526	274 825	-105	294 247
Parks Canada	123 560	0	0	123 560
Environment and Climate Change Canada	19 616	0	0	19 616
Correction for overlaps between jurisdictions	-4 719	0	-54	-4 773
Grand total	168 260	274 825	-159	442 926

Note: Marine refuges are geographic areas that conserve biodiversity, but that do not meet the formal definition of protected areas.
Source: Canadian Council on Ecological Areas (2017) Conservation Areas Reporting and Tracking System (CARTS), with Quebec data used by permission. Data are current as of December 31, 2017.

Table A.4. Data for Figure 5. Percentage of conserved ecozones, Canada, 2017

Ecozone name	Ecozone area (square kilometres)	Area protected (square kilometres)	Percentage of region protected	Area conserved (square kilometres)	Percentage of region conserved
Arctic Cordillera	233 618	53 699	23.0	53 699	23.0
Northern Arctic	1 481 480	105 596	7.1	105 596	7.1
Southern Arctic	957 139	152 829	16.0	152 829	16.0
Taiga Plains	554 014	38 160	6.9	38 160	6.9
Taiga Shield	1 322 786	105 916	8.0	105 916	8.0
Boreal Shield	1 897 362	178 811	9.4	178 811	9.4
Atlantic Maritime	110 590	9 028	8.2	9 028	8.2
Mixedwood Plains	116 206	2 131	1.8	2 131	1.8
Boreal Plains	779 471	58 981	7.6	58 981	7.6
Prairies	465 990	27 318	5.9	27 318	5.9
Montane Cordillera	437 761	81 163	18.5	81 163	18.5
Pacific Maritime	216 942	52 340	24.1	52 340	24.1
Boreal Cordillera	557 937	96 582	17.3	96 582	17.3
Taiga Cordillera	231 161	19 034	8.2	19 034	8.2
Hudson Plains	350 693	43 758	12.5	43 758	12.5
Tundra Cordillera	28 980	7 134	24.6	7 134	24.6
Atlantic Highlands	93 017	3 699	4.0	3 699	4.0
Semi-Arid Plateaux	56 434	5 266	9.3	5 266	9.3
Strait of Georgia	8 969	426	4.8	455	5.1
Southern Shelf	28 158	785	2.8	785	2.8

Ecozone name	Ecozone area (square kilometres)	Area protected (square kilometres)	Percentage of region protected	Area conserved (square kilometres)	Percentage of region conserved
Offshore Pacific	315 724	6 200	2.0	88 633	28.1
Northern Shelf	101 663	9 551	9.4	9 551	9.4
Arctic Basin	752 053	165	0.02	165	0.02
Western Arctic	539 807	12 060	2.2	12 060	2.2
Arctic Archipelago	268 792	3 445	1.3	3 445	1.3
Eastern Arctic	782 636	115 088	14.7	173 750	22.2
Hudson Bay Complex	1 244 670	8 700	0.7	8 700	0.7
Newfoundland and Labrador Shelves	1 041 588	980	0.1	98 351	9.4
Scotian Shelf	416 296	6 000	1.4	25 715	6.2
Gulf of Saint Lawrence	246 648	4 854	2.0	21 204	8.6
Great Lakes	88 250	11 672	13.2	11 672	13.2

Note: The conserved area is the sum of area protected and area conserved using other effective measures. Ecozones are numbered and coded with an "L" for terrestrial regions and "W" for aquatic regions.
Source: Canadian Council on Ecological Areas (2017) Conservation Areas Reporting and Tracking System (CARTS), with Quebec data used by permission. For Ecozones, Canadian Council on Ecological Areas (2014) Canada Ecozones V5b. Data are current as of December 31, 2017.

Additional information can be obtained at:

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